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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/516,980

Applicant(s)

LUHMANN ET AL.

Examiner

ANISH DESAI

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-7 and 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-7 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's arguments in response to the Office action dated 09/25/09 have been fully considered.
2. The 35 USC Section 102/(b)/103(a) rejections based on Stempel (US 5,492,943) are withdrawn after reviewing Applicant's amendment and prior art as a whole. All other art rejections are maintained.

Claim Rejections - 35 USC § 102 or 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-7, and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ahmed et al. (WO 99/57201).
4. Regarding claim 1 recitation "A single-sided or double-sided adhesive redetachable sheet strip...from substrates without residue or destruction by extensive

stretching in the plane of the bond" is interpreted as an intended use of the single-sided or double-sided adhesive sheet strip. If a prior art discloses a single-sided or double-sided adhesive sheet strip comprising a PSA wherein the PSA comprises Applicant's claimed 20 to 70% by weight of block copolymer, 0.5 to 20% by weight of a superabsorbent which is swellable in water, and a tackifier, then it meets the aforementioned recitation.

5. **Ahmed teaches an adhesive composition (page 8 lines 7-22) that comprises a thermoplastic polymer such as a block copolymer (page 9 lines 18-30), a tackifier (page 9 lines 30-31), superabsorbent (referred to as SAP by Ahmed) (abstract and page 8 lines 20-21), and additives (page 14 lines 30-31 to page 15 lines 1-5).** Further, the superabsorbent containing thermoplastic composition (adhesive) of Ahmed can be applied to tape backings (page 21 lines 20-30). This disclosure of Ahmed meets claim requirement of single-sided or double-sided adhesive sheet strip as claimed.

6. **With respect to claim limitation of 0.5 to 20% by weight of the superabsorbent**, at page 16 lines 25-26, Ahmed discloses that the superabsorbent polymer of his/her invention is present in the amount of from 5% by weight to about 70% by weight. Further, Ahmed teaches that "The thermoplastic composition [adhesive] of the present invention can comprise **at least one** SAP polymer admixed with the thermoplastic component." (page 16 lines 20-25). Further, as superabsorbents polymers, Ahmed discloses "These polymers includes...**starch-acrylic acid graft copolymers** [equated to Applicant's starch modified polyacrylic acid]...**slightly network**

crosslinked polymers of any of the foregoing copolymers...crosslinked polymers of partially neutralized polyacrylic acid." (page 18 lines 10-30).

7. With respect to the newly amended claim requirement of **"wherein the block copolymer is incorporated into the mixture in an amount of from 20% to 70% by weight, based on the weight of the adhesive"**, Ahmed discloses "The thermoplastic component [which includes block copolymer as well] of the present invention typically comprises at least one thermoplastic polymer present in an amount ranging from about 10 wt% to about 60 wt%...with respect to the total weight of the composition." (page 8 lines 20-30).

8. As to the Ahmed's hot melt adhesive being PSA, it is noted that Ahmed's adhesive composition and Applicant's adhesive composition as claimed in claim 1 are identical, namely both comprise a block copolymer, superabsorbent, and a tackifier. Therefore, Ahmed's adhesive must be PSA, since the products of identical composition can not have mutually exclusive properties.

9. With respect to the claim requirement of the adhesive sheet strip being redetachable from substrates without residue or destruction by extensive stretching in the plane of the bond, said requirement is necessarily present in the invention of Ahmed.

10. Support for said presumption is based on the fact that the adhesive sheet strips of Ahmed and Applicant both comprise following ingredients: a block copolymer, a water swellable superabsorbent, and a tackifier. Further, the amounts of said ingredients as taught by Ahmed are within Applicant's claimed range. Therefore, it is reasonable to

presume that aforementioned claimed requirement would be present in the adhesive sheet strip of Ahmed. The burden is respectfully shifted to Applicant to prove it otherwise (see *In re Fitzgerald*, 205 USPQ 594). In addition, the presently claimed properties would obviously have been present once the adhesive sheet strip of Ahmed is provided (see *In re Best*, 195 USPQ at 433, footnote 4 CCPA 1977). Accordingly, Ahmed anticipates or strongly suggests the presently claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 4-7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luhmann et al. (US 5,897,949) in view of Ahmed et al. (WO 99/57201).
12. Regarding claim 1, **Luhmann teaches a pressure sensitive adhesive tape that can be detached without residue and without destruction by stretching in the bond plane (column 2 lines 25-30), wherein the PSA of Luhmann comprises a block copolymer in the amount of 15 to 75% by weight, preferably in the range between 30% by weight to 60% by weight, and with particular preference in the range between 35% by weight to 55% by weight (column 3 lines 60-65 to column 4**

lines 1-15), and a tackifier (column 4 lines 15-25). The PSA tapes of Luhmann have applications in the fields of insulating elements, sealing elements etc. (column 3 lines 45-60).

13. With respect to claims 1 and 4, the difference between the claimed invention and the prior art of Luhmann is that Luhmann is silent as to teaching PSA comprising a superabsorbent as presently claimed.

14. However, the invention of Ahmed is previously disclosed and it is incorporated here by reference. Additionally, it is noted that according to Ahmed, water-insoluble, water swellable superabsorbents are capable of absorbing large quantities of liquid such as water and capable of retaining such absorbed liquids under moderate pressure (page 1, Background of the Invention, lines 19-25). Additionally, Ahmed at page 1 lines 25-26 discloses that superabsorbent is used in the various cable applications to shield the penetration of moisture.

15. It is noted that the PSA of the primary reference of Luhmann includes a block copolymer and a tackifier. Further, the PSA tape of Luhmann is used in insulating and sealing applications (column 3 lines 55-60), where penetration of moisture and liquid (e.g. water) would be undesirable. The secondary reference of Ahmed provides adhesive composition containing superabsorbents that can absorb large quantities of liquid and further provide shielding against moisture penetration.

16. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the superabsorbent polymer of Ahmed in the

amount as taught by Ahmed in the PSA of Luhmann, motivated by the desire to form PSA tape that can effectively provide shielding against moisture and liquid penetration.

17. Regarding claims 5, 6, and 9, as previously noted Ahmed teaches that "The thermoplastic composition [adhesive] of the present invention can comprise **at least one** SAP polymer admixed with the thermoplastic component." (page 16 lines 20-25).

Further, as superabsorbents polymers, Ahmed discloses "These polymers includes...**starch-acrylic acid graft copolymers** [a starch modified polyacrylic acid]...**slightly network crosslinked polymers of any of the foregoing copolymers...crosslinked polymers of partially neutralized polyacrylic acid.**"

(page 18 lines 10-30). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the superabsorbent polymer of Ahmed in the amount as taught by Ahmed in the PSA of Luhmann, motivated by the desire to form PSA tape that can effectively provide shielding against moisture and liquid penetration. Regarding claim 7, Luhmann discloses that the PSA of his/her invention includes fillers (equated to additive) (column 4 lines 30-40).

Response to Arguments

18. Applicant's arguments filed on 02/25/09 have been fully considered but they are not persuasive.

37 C.F.R 1.132 Declaration Submitted by Mr. Thorsten Krawinkel

19. The declaration has been fully reviewed and considered. However, it is not found persuasive for the following reasons. It is respectfully submitted that Stempel

reference clearly teaches that the adhesive (skin barrier composition) of his invention has high cohesive strength such that it resists disintegration throughout its use and remains intact at the time of removal so that no or little residue remain adhered to the skin (column 1 lines 25-35). Likewise, Stempel contemplates a strippable adhesive tape. However, the art rejections over Stempel are moot in view of the present amendment.

20. With regards to the 35 USC Section 102(b)/103(a) rejections based on Ahmed et al. (WO 99/57201), Applicant essentially argues that Ahmed does not teach or suggest claim 1. Further, Applicant asserts that Ahmed does not teach or suggest a pressure sensitive adhesive; instead Ahmed is directed to a composition having a thermoplastic component and at least one superabsorbent which may be formed into a film layer or applied to an article with various hot melt adhesive application techniques.

21. The Examiner respectfully disagrees for the following reasons:

22. It is noted that Ahmed clearly teaches that his composition can be an **adhesive** (see page 8 lines 7-22). Further, as to Applicant's arguments that Ahmed does not teach or suggest claim 1, the Examiner submits the following fact based findings from Ahmed's reference.

23. **Ahmed teaches an adhesive composition (page 8 lines 7-22) that comprises a thermoplastic polymer such as a block copolymer** (page 9 lines 18-30), **a tackifier** (page 9 lines 30-31), **superabsorbent** (referred to as SAP by Ahmed) (abstract and page 8 lines 20-21), and additives (page 14 lines 30-31 to page 15 lines 1-5). Further, the superabsorbent containing thermoplastic composition (adhesive) of

Ahmed can be applied to tape backings (page 21 lines 20-30). This disclosure of Ahmed meets the claim requirement of single-sided or double-sided adhesive sheet strip as claimed.

24. **With respect to claim limitation of 0.5 to 20% by weight of the superabsorbent**, at page 16 lines 25-26, Ahmed discloses that the superabsorbent polymer of his/her invention is present in the amount of from 5% by weight to about 70% by weight. Further, Ahmed teaches that "The thermoplastic composition [adhesive] of the present invention can comprise **at least one SAP polymer** admixed with the thermoplastic component." (page 16 lines 20-25). Further, as superabsorbent polymers, Ahmed discloses "These polymers includes...**starch-acrylic acid graft copolymers** [equated to Applicant's starch modified polyacrylic acid]...**slightly network crosslinked polymers of any of the foregoing copolymers...crosslinked polymers of partially neutralized polyacrylic acid.**" (page 18 lines 10-30).

25. **With respect to the newly amended claim requirement of "wherein the block copolymer is incorporated into the mixture in an amount of from 20% to 70% by weight, based on the weight of the adhesive"**, Ahmed discloses "The thermoplastic component [which includes block copolymer as well] of the present invention typically comprises at least one thermoplastic polymer present in an amount ranging from about 10 wt% to about 60 wt%...with respect to the total weight of the composition." (page 8 lines 20-30).

26. As to the Ahmed's adhesive being PSA, it is noted that Ahmed's adhesive composition and Applicant's adhesive composition as claimed in claim 1 are identical,

namely both comprise a block copolymer, superabsorbent, and a tackifier. Therefore, Ahmed's adhesive must be a PSA, since the products of identical composition can not have mutually exclusive properties.

27. With respect to the claim requirement of the adhesive strip being redetachable from substrates without residue or destruction by extensive stretching in the plane of the bond, said requirement is necessarily present in the invention of Ahmed.

28. Support for said presumption is based on the fact that the adhesive sheet strips of Ahmed and Applicant both comprise a block copolymer, a water swellable superabsorbent, and a tackifier. Further, the amounts of said materials as taught by Ahmed are within what is claimed by Applicant. Therefore, it is reasonable to presume that aforementioned claimed requirement would be present in the adhesive sheet strip of Ahmed. The burden is respectfully shifted to Applicant to prove it otherwise (see *In re Fitzgerald*, 205 USPQ 594). In addition, the presently claimed properties would obviously have been present once the adhesive sheet strip of Ahmed is provided (see *In re Best*, 195 USPQ at 433, footnote 4 CCPA 1977). Accordingly, Ahmed anticipates or strongly suggests the presently claimed invention.

29. As to Applicant's arguments that Ahmed does not teach any values for tear strength, said arguments are not found persuasive because they are not commensurate in scope with the presently claimed invention. Accordingly, the art rejections based on Ahmed et al. are sustained.

30. With respect to the 35 USC Section 103(a) rejections based on Luhmann et al. (US 5,897,949) in view of Ahmed et al. (WO 99/57201), Applicant does not agree with the Examiner's rationale of combining Ahmed with Luhmann. Applicant argues that "There is no teaching or suggestion in Luhmann or in its combination with Ahmed that would suggest that a superabsorbent polymer as described in Ahmed is useful in a redetachable adhesive tape or a pressure sensitive adhesive because Ahmed is directed to hot melt adhesives and not directed to a redetachable adhesive tape or a pressure sensitive adhesive. According to Applicant "Absent such teaching or suggestion in Luhmann or in its combination with Ahmed, persons ordinarily skilled in the art would not have had a motivation to form an adhesive tape comprising a superabsorbent polymer according to Luhmann with the superabsorbent described in Ahmed as alleged by the Patent Office." (pages 9-10 of 02/25/09 amendment).

31. The Examiner respectfully submits that as to Applicant's arguments regarding there must be some teaching, suggestion in the prior art to render claim obvious, these arguments are not found persuasive in view of the recent decision by the Supreme Court in *KSR International Co. V. Teleflex Inc.* which effectively negates this requirement.

32. Additionally, the Examiner submits that Luhman's PSA comprises Applicant's claimed block copolymer and tackifier (see column 3 lines 60-65 to column 4 lines 1-25). Further, the PSA tape of Luhmann is used in insulating and sealing applications (column 3 lines 55-60), where penetration of moisture and liquid (e.g. water) would be undesirable. Likewise, the secondary reference of Ahmed also discloses an adhesive

that comprises block copolymer, tackifier, and superabsorbent polymer. Furthermore, it is noted that according to Ahmed, water-insoluble, water swellable superabsorbents are capable of absorbing large quantities of liquid such as water and capable of retaining such absorbed liquids under moderate pressure (page 1, Background of the Invention, lines 19-25). Additionally, Ahmed at page 1 lines 25-26 discloses that superabsorbent is used in the various cable applications to shield the penetration of moisture. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the superabsorbent polymer of Ahmed in the amount as taught by Ahmed in the PSA of Luhmann, motivated by the desire to form PSA tape that can effectively provide shielding against moisture and liquid penetration.

33. As to Applicant's arguments "As discussed above, the compositions of Ahmed have tear strength values less than those of the adhesives of Stempel and would fail in a redetachable adhesive strip. No person skilled in the art would ever add Ahmed's superabsorbent polymer to Luhmann's adhesive tapes, out of concern that this would weaken Luhmann's adhesive, as in Ahmed's composition...as removable adhesives." (page 10 of 02/25/09 amendment). These arguments are not found persuasive because they are merely speculative in nature and there is no factual evidence on the record to indicate that if one were to add the superabsorbent of Ahmed to Luhmann's adhesive, the resulting adhesive of Luhmann would be weakened.

34. Applicant argues "Moreover, persons skilled in the art would have assumed that the adhesive comprising superabsorbents would swell by tacking water, and such swelling would lead to a bending of the adhesive tape made out of such adhesive which would result in bonding joint failure throughout the adhesive tape." (page 10 of 02/25/09 amendment).

35. The Examiner submits that if Applicant asserts that addition of superabsorbent would lead to a bending of the adhesive tape made out of such adhesive and it would result in bonding joint failure throughout the adhesive tape, then a question is raised as to the operability of Applicant's claimed invention, since Applicant adds superabsorbent to his/her adhesive. Accordingly, Applicant's arguments are not found persuasive and the art rejections are sustained.

Conclusion

36. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

37. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH DESAI whose telephone number is (571)272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

39. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

40. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. D./
Examiner, Art Unit 1794

/Hai Vo/
Primary Examiner, Art Unit 1794